



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
525 NE Oregon Street
PORTLAND, OREGON 97232-2737

Refer to:

OSB1999-0163

August 4, 1999

Van Manning
Bureau of Land Management
Salem District Office
1717 Fabry Road SE
Salem, Oregon 97306

RE: Section 7 Consultation for Upper Nestucca Motorcycle Trail System, that May Affect Oregon Coast Coho Salmon within the Nestucca River Watershed, and Upper Willamette River Steelhead and Upper Willamette River Chinook Salmon within the Willamina Creek Watershed, Oregon

Dear Mr. Manning:

The National Marine Fisheries Service (NMFS) has received a September 3, 1998, letter and biological assessments (BAs), from Van Manning, Bureau of Land Management (BLM), and James R. Furnish, U.S. Forest Service (USFS), to Elizabeth Holmes Gaar (NMFS), and a July 12, 1999, memorandum and BA, from Van Manning (BLM) to Rick Applegate (NMFS), requesting formal consultation on proposed actions that may affect Oregon Coast coho salmon, Upper Willamette River (UWR) steelhead, and UWR chinook salmon. Table 1 presents a summary and disposition of the proposed actions submitted for consultation in the above correspondence,

As footnoted in the March 3, 1999, biological opinion (Opinion), the Upper Nestucca Motorcycle Trail System was not included in that consultation because the proposed action included a Monitoring and Evaluation Plan (M&E) and a Maintenance Plan (Plans), which were in development. Since the Plans were not completed, but were part of the proposed action, the NMFS could not effectively analyze the effects of the action. The M&E Plan was issued on November 3, 1998, and the Maintenance Plan was issued on February 19, 1999. In addition, the NMFS awaited initiation of consultation on the Willamina Creek portion of the Upper Nestucca Motorcycle Trail System prior to the development of an Opinion on the entire proposed action. On May 5, 1999, Steven Morris, NMFS, submitted a letter to Van Manning, BLM, indicating that the consultation on the Nestucca River portion of the Upper Nestucca Motorcycle Trail System would be held in abeyance until agreement on terms and conditions is reached and after consultation on the Willamina Creek portion of the action is initiated.

Table I. Summary and disposition of proposed actions submitted for consultation.

Date Submitted	Date NMFS Received	Administrative Unit	Project Title	Effects Determination	Disposition
9/3/98	9/4/98	Siuslaw National Forest	Baxter Thin TS	LAA	3/3/99 Biological opinion
			Robinson LE	LAA	3/3/99 Biological opinion
			Bummer Swamp Regeneration Harvest	LAA	3/3/99 Biological opinion
			Twilight TS	NLAA	9/21/98 Concurrence Letter
			Upper Nestucca Motorcycle Trail System- Nestucca River Portion	LAA	Addressed in this document
7/12/99	7/13/99	Salem BLM	Upper Nestucca Motorcycle Trail System- Willamina River Portion	LAA	Addressed in this document

The purpose of this letter is to document the NMFS' Opinion that the Upper Nestucca Motorcycle Trail System is not likely to jeopardize the continued existence of Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon, as explained below. This consultation is conducted under section 7(a)(2) of the Endangered Species Act (ESA), and its implementing regulations, 50 CFR § 402.

The Oregon Coast coho salmon (*Oncorhynchus kisutch*) Evolutionarily Significant Unit¹ (ESU) was listed as threatened under the ESA by the NMFS on August 10, 1998 (63 FR 42587).

¹ For purposes of conservation under the Endangered Species Act, an Evolutionarily Significant Unit is a distinct population segment that is substantially reproductively isolated from other conspecific population units and represents an important component in the evolutionary legacy of the species (Waples 1991).

Critical habitat for Oregon Coast coho salmon was proposed on May 10, 1999 (64 FR 24998). The UWR steelhead (*O. mykiss*) ESU was listed as threatened under the ESA by the NMFS on March 25, 1999 (64 FR 14517). Critical habitat was proposed for all listed and proposed steelhead ESUs on February 5, 1999 (64 FR 5740). The UWR chinook salmon (*O. tshawytscha*) was listed as threatened under the ESA by the NMFS on March 24, 1999 (64 FR 14308).

Critical habitat was proposed for UWR chinook salmon when they were proposed for listing (March 9, 1998, 63 FR 11482).

Salem District BLM personnel made the effects determinations in the BAs following procedures described in NMFS (1996, 1997). The effects of the action proposed in the BAs were evaluated by the BLM biologists at the project scale using criteria based upon the biological requirements of Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon, and the Aquatic Conservation Strategy (ACS) objectives of the Northwest Forest Plan (NFP, USDA-FS and USDI-BLM 1994). The BLM biologists also evaluated the likely effects of the proposed action on the watershed scale and in the long-term in the context of watershed processes. The level-1 streamlined consultation team for the Oregon Coast Range Province, which consists of representatives from the Siuslaw National Forest, Salem District BLM, Eugene District BLM, and NMFS, has defined "long-term" for ESA consultation purposes as about a decade, while short term effects would occur for a lesser period, typically about a year. The level-1 team for the Oregon Coast Range Province met on August 27, 1998, to review the effects determination and documentation of ACS consistency for the proposed action. The team concurred on the effects determination and ACS consistency analysis.

Pronosed Action

The proposed action occurs within the Upper Nestucca River and Willamina Creek fifth-field hydrologic unit code¹ (HUC) watersheds in the Oregon Coast Range Province and Willamette Province, respectively. The BAs have detailed information on the proposed action, but a summary is provided below.

The BLM proposes to develop a system of off-highway vehicle (OHV) trails in the Bald Mountain Area on the crest of the Coast Range Mountains. The total mileage for the proposed trail system is 42 miles. The following are points from the Decision Record (USDI-BLM 1998a) that apply to Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon.

² Stream drainages can be arranged in nested hierarchies, in which a large drainage is composed of smaller drainages. The USFS and BLM use a system in which these drainages are numbered in a computer data base for analytical purposes. The number identifier of a particular drainage in this data base is called its hydrologic unit code, or HUC. This HUC increases with decreasing drainage area, thus a fourth-field HUC (such as the Wilson/trask/Nestucca basin) is composed of several fifth-field HUCs (such as Upper Nestucca River, etc., hereafter referred to as a watershed), and so on. The Northwest Forest Plan determined that the scale for Watershed Analyses should be 20 to 200 square miles, which often corresponds to a fifth-field HUC.

Decision element 1. The BLM will continue to cooperate with the Applegate Roughriders Motorcycle Club to develop a well-planned and designed system of OHV trails in the Upper Nestucca area that results in a minimum of adverse impacts to soils, water quality, and wildlife species that inhabit late-successional forests. The BLM's intention is to complete a trail system at this time that totals 38 miles.

- a. Approximately 23 miles of OHV trail in the Upper Nestucca area have been previously approved and are currently in use.
- b. Another 15 miles, consisting of the 37 proposed trail locations listed in Appendix A of the Decision Record, have been examined by BLM interdisciplinary staff, and are now approved. Approximately 11 of these miles of trail would be located within adaptive management reserve (AMR; land that is both adaptive management area and late successional reserve). Roughly half of these trail routes are already receiving some degree of use by the public.
- c. The BLM will monitor use of the trail system for a period of three years from the date of approval of this decision. At that time, based on the monitoring, an additional 0 to 4 miles of trail may be designated in order to provide linkage between various portions of the trail system. Such additional trails will meet all standards contained in the Decision Record relating to trail location and construction.
- d. The BLM, in cooperation with the Applegate Roughriders Motorcycle Club, will annually review the trail system to identify existence and use of unauthorized OHV trails. Unauthorized trails will be closed to further use and rehabilitated within one year. Members of the Applegate Roughriders Motorcycle Club estimate that approximately one mile of such trails exist in the OHV area at present. Because OHV use is going to be concentrated within the Upper Nestucca Cooperative Management Area (CMA), the BLM will, within the CMA or other portions of the AMR, seek to identify areas and trails receiving indiscriminate OHV activity and reconfigure that use to offset the construction of new trails that are included in this decision. The 15-19 miles of new trails in this proposal will be offset by an equivalent amount (15-19 miles) of trail closures within the late- successional reserve (LSR).

Decision element 2. All trail construction will comply with the standards for trail construction contained in Appendix B of the Decision Record.

Decision element 4. Not more than two organized special events will be approved during any calendar year. These events will not include timed races, and participation will be limited to no more than 75 riders per event. At the time of issuing the permits for these special events, appropriate resource protection measures to minimize potential impacts will be incorporated into the terms and conditions of the permit. Other measures may include daily time restrictions, garbage control, additional maintenance requirements, and portable toilets.

Decision element 6. Communication with trail users will be promoted as a means of reducing negative impacts on the environment, through use of appropriate signs at staging areas, trailheads, and at strategic points on trails. Information on the signs will include such items as trail system maps, trail names and lengths, indication of one-way trails, degree of difficulty, limitations or requirements on use, and need for all-terrain vehicle permits. The requirements and supplemental rules pertaining to use of the OHV trails in this area, along with the final designation as a limited use area, will be submitted for publication in the Federal Register within 30 days of the effective date of this decision. This notice will also be published in local newspapers, including the Tillamook Headlight Herald and the McMinnville News-Register. Field enforcement of the supplemental rules will commence upon final publication in the Federal Register.

Decision element 7. The M&E Plan was completed and approved by the Tillamook Resource Area manager on November 3, 1998 (Willamina Creek portion BA, Appendix E).

Decision element 8. Evaluation of the overall trail system is expected to occur at three-year intervals beginning with the first full operating season following approval of the monitoring and evaluation plan. At that time, BLM will establish additional restrictions on use of trails, modify or eliminate certain trails in the system, or close portions of the OHV use area to eliminate undesirable environmental effects if information gathered annually from the Monitoring and Evaluation Plan warrant such action.

Decision element 9. A trail maintenance plan for the Upper Nestucca OHV Area was developed jointly by BLM, U.S. Fish and Wildlife Service, National Marine Fisheries Service and the Applegate Roughriders Motorcycle Club, and approved by the Tillamook Resource Area manager on February 19, 1999 (Willamina Creek portion BA, Appendix F). Trails not maintained to meet the standards will be stabilized, repaired, or reconstructed to meet the standards, or closed to further use within 12 months. Undesignated trails will be blocked and closed within 12 months.

Decision element 10. The BLM will continue to identify roads in this or other parts of the AMR for closure and stabilization. Closures will focus on: 1) roads and trails used primarily by OHV's, and 2) areas which will provide the most benefit to listed species. There are currently 25 miles of roads identified and analyzed for decommissioning in the upper Nestucca River basin under environmental assessment OR086-5-102. To date, approximately 13 of the 25 miles have been closed and decommissioned. Funds may be allocated for road decommissioning in fiscal year 1999. The Tillamook Resource Area staff will close the remaining 12 miles of road during fiscal year 1999, or as many miles as the available funds will cover, and any remaining miles will be closed within two years. Roads to be closed are those not needed to meet current or projected transportation needs and not required as part of access agreements with other landowners in the area. If necessary to prevent or reduce the potential for erosion, sedimentation, or debris slides, closed roads will be stabilized by removing culverts and deep fills and pulling up unstable sidecast material. Roads which have the highest potential for slope failures and adverse impacts to nearby stream channels will have first priority for decommissioning.

Decision element 11. As part of monitoring, the need to designate up to 4 miles of additional trails (beyond the 15 miles now approved) will be evaluated. If additional trails are needed to provide connectivity of the trail system or to replace portions of the system which are to be closed, they will be located according to the following guidance:

- a. All trails will be located within the Upper Nestucca OHV Management Area.
- b. Preference will be given to locations within younger plantations and forest stands less than 80 years old.
- c. The preferred location for trails will be outside of the Riparian Reserves. The BLM recognizes that development of a logical trail system will not be possible without entering some Riparian Reserves, but every effort will be made to minimize stream crossings and to locate trails on upper ridges and gentle slopes above the level of substantial runoff and stream channel formation. The intent of this guideline is to focus on compliance with the ACS as described in the Salem District BLM Resource Management Plan (RMP) and in the NFP, in addition to complying with standard and guideline (S&G) RM-1 (page C-34 of USDA-FS and USDI-BLM 1994).
- d. Consideration will be given to locating additional trails outside the Key Watershed, that is, on the Willamina Creek side of the divide, rather than on the Nestucca River side.
- e. Preference will be given to trails which provide connections to form a series of loops.
- f. New trail routes will be surveyed for botanical resources prior to approval of the location. Design features to minimize impacts to populations of sensitive or listed species will be incorporated, or trail locations will be rerouted.
- g. New trail routes will be evaluated for potential impacts to Special Status fish and wildlife species and their habitats. Design features to minimize impacts will be incorporated.
- h. All proposed trail locations will be evaluated to assure compliance with ACS, as described in the RMP and in the NFP. Design features to minimize impacts will be incorporated.
- i. All proposed trail locations will be surveyed for cultural resources.
- j. All proposed trails will be located at least one mile from the Nestucca River, to minimize potential impact to nesting habitat for bald eagles.

The following are descriptions of the proposed action on both sides of the Coast Range Mountains.

Nestucca side: The existing trail system includes approximately 17.5 miles within the Nestucca River drainage. An estimated 10 miles of new trail is proposed in the Nestucca River, Bald Mountain Fork, and Testament Creek sixth-field subwatersheds of the Upper Nestucca River

fifth-field watershed. Approximately 8 miles are proposed to follow existing logging roads or cat trails, and about 5 miles are currently being used or have been used by OHV's, although they have not been designated and approved by the BLM. Approximately 2 miles of the proposed action would be newly constructed trail. Five stream crossings are associated with the trails included in the proposed action. Two of the stream crossings are proposed on small perennial streams, while the other three cross intermittent streams. The nearest anadromous fish use, including Oregon Coast coho salmon, are estimated to be 0.75 miles or more downstream of trail locations. The Nestucca River is a key watershed, and a watershed analysis has been completed (USDA-FS *et al.* .1994).

Willamina side: The existing trail system includes about 5.5 miles within the Willamina Creek drainage. An estimated 8 miles of new trail is proposed for the Willamina Creek fifth- field watershed. Approximately 6.5 miles are proposed to follow existing logging roads or cat trails, and about 4 miles are currently being used or have been used by OHV's, although they have not been designated and approved by the BLM. Approximately 1.5 miles of the proposed action would be newly constructed trail. Eight stream crossings are associated with the trails included in the proposed action, all located on intermittent streams. The nearest anadromous fish use, including UWR steelhead, are located approximately 0.25 miles or more downstream of the trails. Willamina Creek is not a key watershed. UWR chinook salmon are included in this consultation, however, there is no documentation of chinook salmon within the Yamhill drainage. Willamina Creek flows into the South Fork Yamhill River, which converges with the North Fork Yamhill River at the town of McMinnville to form the mainstem Yamhill River.

Biological Information and Critical Habitat

Environmental baseline conditions in the Oregon Coast Range Province are discussed in Weitkamp *et al.* (1995), and pages 12-15 and 17 of NMFS (1997), and pages 10-12 in Attachment 1 of NMFS (1997). Cumulative effects as defined under 50 CFR § 402.p2 are discussed for Oregon Coast coho salmon on pages 40-43 of NMFS (1997). These respective analyses are incorporated herein by this reference. The biological requirements (including the elements of critical habitat) of Oregon Coast coho salmon are discussed in NMFS (1997).

The environmental baseline conditions in the Willamette Province are discussed in Myers *et al.* (1998). Biological, life history, and population trends information for UWR steelhead can be found in Busby *et al.* (1995) and Busby *et al.* (1996). The biological requirements (including the elements of critical habitat) of UWR steelhead are discussed in the proposed rule for critical habitat (February 5, 1999, 64 FR 5740). The biological requirements (including the elements of critical habitat) of UWR chinook salmon are discussed in the proposed listing and critical habitat rule (March 9, 1998, 63 FR 11482).

The NMFS is not aware of any newly available information that would materially change these previous analyses of biological requirements, environmental baseline or cumulative effects for the purpose of this Opinion. Some general biological information is provided below.

Oregon Coast coho salmon are an anadromous species which typically have a three-year life-cycle and occur in the Upper Nestucca River fifth-field watershed. Adults spawn in the late fall and winter, with fry emergence occurring the following spring. Juvenile coho salmon rear for about a year in natal streams and then outmigrate to the ocean as smolts in the spring. Some male coho salmon return to freshwater to spawn the fall and winter of the same year as their smolt migration, but the majority of adult Oregon Coast coho salmon do not return to spawn until having spent about 18 months in the ocean. Thus, an active Oregon Coast coho salmon stream would be used for some life history stages as rearing, feeding, spawning, and incubation habitat year-round.

UWR steelhead include only late-migrating winter run native steelhead above Willamette Falls. They enter fresh water primarily in March and April and typically spawn in late winter or spring (Barnhart 1986; Nickelson *et al.* 1992). Some adults, however, do not enter coastal streams until spring, just before spawning (Meehan and Bjornn 1991). Steelhead eggs generally incubate for 1.5 to 4 months between February and June (Bell 1991), and typically emerge from the gravel two to three weeks after hatching (Barnhart 1986). Juveniles generally spend 2 years in freshwater before migrating to the ocean. They typically reside in marine waters for two or three years prior to returning to their natal stream to spawn as four- or five-year olds (August 9, 1996, 61 FR 41542).

UWR chinook salmon include only native spring-run populations above Willamette Falls. Adult spring-run chinook salmon enter the Columbia River in March and April, but they do not ascend the Willamette Falls until May or June. The migration past the falls generally coincides with a rise in river temperatures about 10 degrees Celsius. Spawning generally begins in late August and continues into early October, with spawning peaks in September. Populations share features of both the stream- and ocean- type life histories. Scale analysis of returning fish indicate a predominantly yearling smolt life-history and maturity at four years of age, but these data are primarily from hatchery fish and may not accurately reflect patterns for the natural fish. Young-of-year smolts have been found to contribute to the returning 3-year-old year class. In general, Willamette River spring-run chinook salmon mature in their fourth and fifth year of life, with the majority at age 4. Additional life history information can be found in Bennett (1988) and Howell *et al.* (1985). UWR chinook salmon are included in this consultation, however, there is no documentation of chinook salmon within the Yamhill drainage.

The Nestucca River Watershed contains 202.8 miles of habitat utilized by Oregon Coast coho salmon, and 574.5 miles of resident cutthroat trout habitat (USDA-FS *et al.* 1994). The most recent data from the Oregon Department of Fish and Wildlife spawning surveys indicate that Willamina Creek averages 8.6 redds per mile for the period between 1985 and 1991 (USDI-BLM 1998b).

Although general information about the populations of Oregon Coast coho salmon within the Upper Nestucca River watershed, and UWR steelhead and UWR chinook salmon within the Willamina Creek watershed is available (e.g., those streams likely inhabited), specific information on the size and health of anadromous fish populations on a stream or watershed scale is often lacking or incomplete. Because of the general paucity of the type of knowledge, and the fact that all fish species, populations, and individuals depend on adequate habitat, the

NMFS uses a habitat-based system in ESA consultation on land-management activities (Attachment 1 of NMFS 1997). The NMFS has applied the concept of properly functioning condition to assess the quality of the habitat that fish need to survive and recover. This concept is discussed in the next section.

Site-specific environmental baseline descriptions and effects determinations were made by BLM personnel for the proposed action. This information is found in the EAs, W As, and the project-level (sixth-field subwatershed) checklists for documenting environmental baseline and effects of proposed actions on relevant indicators (Checklist) which were included in the BAs. In addition, watershed-level information on Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon habitat is provided in the EAs, W As, and fifth-field scale Checklists and text. The NMFS concurred with these site-specific and watershed environmental baseline descriptions and effects determinations in the streamlined consultation process, and the NMFS considered them in addition to the broad scale analysis done for NMFS (1997) described above.

Evaluation of Proposed Actions

The standards for determining jeopardy are set forth in Section 7(a)(2) of the ESA as defined by the implementing regulations (50 CFR § 402). Attachment 2 of NMFS (1997) describes how the NMFS applies the ESA jeopardy and destruction/adverse modification of critical habitat standards to consultations on federal land management actions in the Oregon Coast Range and Willamette provinces. .

As described in Attachment 2 of NMFS (1997), the first steps in applying the ESA jeopardy standards are to define the biological requirements of Oregon Coast coho salmon and to describe the species' current states as reflected by the environmental baseline. In the next steps, the NMFS' jeopardy analysis considers how proposed actions are expected to directly and indirectly affect specific environmental factors that define properly functioning aquatic habitat essential for the survival and recovery of the species. This analysis is set within the dual context of the species' biological requirements and the existing conditions under the environmental baseline [defined in Attachment 1 of NMFS (1997)]. The analysis takes into consideration an overall picture of the beneficial and detrimental activities taking place within the action area, which is defined as "all areas to be affected directly or indirectly by the federal action and not merely the immediate area involved in the action" (50 CFR § 402.02). If the net effect of the activities is found to jeopardize the listed species, then the NMFS must identify any reasonable and prudent alternatives to the proposed action.

Biological Requirements. For this consultation, the NMFS finds that the biological requirements of Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon are best expressed in terms of current population status and environmental factors that define properly functioning freshwater aquatic habitat necessary for survival and recovery of the species. The NMFS defines this properly functioning condition as the state in which all of the individual habitat factors these indicators have been determined, using the best information available. These indicators, when considered together, provide a summary of the conditions necessary to ensure the long-term survival of aquatic species.

The NMFS has assembled a set of these indicators in a table called the Matrix of Pathways and Indicators (NMFS 1996). The Matrix lists several categories or "pathways" of essential salmonid habitat, such as water quality, instream habitat elements, and flow/hydrology. Under these pathways are quantitative habitat indicators for which ranges of values are identified that correspond to a "properly functioning" condition, an "at risk" condition, and a "not properly functioning" condition. Because these habitat measurements are more readily available than quantitative measurements of biological variables (such as incubation success, standing crop, and growth rate), the BLM and NMFS are able to assess the health of stream reaches or watersheds based on the condition of their component indicators. Such an assessment provides a baseline description of the health of the stream/watershed, and also allows the effects of an action to be evaluated.

Properly functioning watersheds, where all of the individual factors operate together to provide healthy aquatic ecosystems, are necessary for the survival and recovery of the listed species. It follows, then that the NMFS has determined that an action which would 'cause the habitat indicators of a watershed to move to a degraded condition or one which further degrades a "not properly functioning" watershed is also likely to jeopardize the continued existence of the listed species.

In addition to the use of the Matrix at the watershed scale to assist in making "jeopardy" determinations in Section 7 consultations (especially for land management agencies), the NMFS also uses the Matrix at the site or project scale (often the sixth- or seventh- field subwatershed). Assuming that a Federal agency determines that an action "may affect" a listed species, either informal or formal consultation is required. To assist in this determination, the action agency prepares a project-level Checklist.

Current range-wide status of listed species under environmental baseline. The NMFS described the current population status of Oregon Coast coho salmon in a status review (Weitkamp *et al.* 1995) and in the final rule (August 10, 1998, 63 FR 42587). The recent range-wide status of Oregon Coast coho salmon is summarized in NMFS (1998). The NMFS described the current population status of UWR steelhead in a status review (Busby *et al.* 1996) and in the final rule (March 25, 1999, 64 FR 14517). The NMFS described the current population status of UWR chinook salmon in a status review (Myers *et al.* 1998) and in the proposed rule (March 9, 1998, 63 FR 11482).

Current status of listed species under environmental baseline within the action areas. As noted above, the "action area" includes all areas directly or indirectly affected by the proposed actions. The general action area for this Opinion can be defined as the Upper Nestucca River and Willamina Creek watersheds. As noted above, Oregon Coast coho salmon use the Upper Nestucca River watershed, and UWR steelhead use the Willamina Creek watershed, as rearing, feeding, spawning, and incubation habitat, as well as a migration corridor. UWR chinook salmon have not been documented within the Yamhill drainage. The environmental baseline of the action areas are dominated by conditions rated largely as "at risk" or "not properly functioning" in the Nestucca River and "not properly functioning" in Willamina Creek (see watershed Checklists and text in the BAs). These conditions are likely primarily the result of past forest management and agricultural practices, in particular, timber harvest/clearing within

riparian zones, large-scale clear-cut timber harvest, road construction (especially within riparian zones), and timber yarding in riparian zones and streams.

Although the NMFS reviewed the indicators that would "maintain" or "restore" habitat as a result of each proposed action, indicators particularly at issue in this consultation are those which the proposed actions would likely degrade at the project scale. In this case, "turbidity" and "substrate/sediment" were determined to be degraded in the short term at the project scale by the proposed action. The environmental baseline for these indicators were listed as "at risk" in the Nestucca River and "not properly functioning" in Willamina Creek.

Based on the best information available on the current status of Oregon Coast coho salmon [Attachment 1 of NMFS (1997)], UWR steelhead (Busby *et al.* 1999; USDI-BLM 1998b; March 25, 1999, 64 FR 14517), and UWR chinook salmon (Myers 1998; March 9, 1998, 63 FR 11482) the NMFS assumptions given the information available regarding population status, population trends, and genetics [Attachment 2 of NMFS (1997)], and the relatively poor environmental baseline conditions within the action areas (see Checklists in the BAs; August 10, 1998, 63 FR 42587; March 24, 1999, 64 FR 14308; Myers *et al.* 1998), the NMFS finds that the environmental baseline does not currently meet all of the biological requirements for the survival and recovery of the listed species within the action areas. Actions that would retard attainment of properly functioning aquatic conditions, when added to the environmental baseline, would not meet the needs of the species for survival and recovery .

Analysis of Effects

The effects determinations in the BAs were made using a method for evaluating current aquatic conditions (the environmental baseline) and predicting effects of actions on them. This process is described in NMFS (1996). This assessment method (in which Checklists are assembled by action agency biologists) was designed for the purpose of providing adequate information in a tabular form for the NMFS to determine the effects of actions subject to consultation.

The BLM used the Matrix and Checklist to make project-level effects determinations. The action was determined to be "likely to adversely affect" (LAA) because at least one of the indicators is thought to be degraded at the project level by the action. In turn, if the project was determined to LAA a listed species, then, based on the "jeopardy" criteria described in NMFS (1997), the BLM needed to determine whether the project, when combined with the environmental baseline for the watershed over the long-term, is consistent with the ACS of the NFP. This "consistency" is condensed to a two-part test in NMFS (1997, page 14 of Attachment 2): Is the proposed action in compliance with the S&G's for the relevant land use allocation, and does the proposed action meet all pertinent ACS objectives? This determination is made with the assistance of the Checklist at the watershed scale.

Project-Level Effects. The Checklists provided by the BLM for the effects of the action are expressed in terms of the expected effect (restore, maintain, or degrade) on aquatic habitat factors in the project areas/sixth-field subwatersheds affected by the proposed action. The results of the completed Checklists for the proposed action provide a basis for determining the effects of the action on the environmental baseline in the project areas.

In this consultation, the BLM provided a Checklist for each sixth-field subwatershed affected by the proposed action. In general, the BLM determined the action would not degrade a majority of the habitat indicators at the project level, chiefly because of the maintenance of the riparian zones. Also, the BLM believes that construction and maintenance of the Upper Nestucca Motorcycle Trail System would be performed in ways which would have little or no effect on the hydrologic characteristics of the sites. Degradation of habitat indicators as a result of implementation of the proposed action are primarily short term, with long term maintenance of the indicators.

The BLM found that at the project level, the "turbidity" and "substrate/sediment" indicators would be degraded due to the proposed action, and all other indicators would be maintained. The BLM attributes the "degrade" check marks for "turbidity" and "substrate/sediment" to short term increases from trail improvement work, trail construction, culvert installations, and trail use. The effects of trail construction and culvert installations are potential short-term impacts to water quality from sediment runoff. Trail construction criteria presented in Appendix B of the Decision Record will minimize the potential for sediment and turbidity, and any sediment is unlikely to reach perennial stream channels. Turbidity from operation of OHV s during the wettest portions of the year and from the natural surfaced trails could potentially result in localized turbidity , however the M&E and Trail Maintenance plans should prevent any chronic problems from developing. In addition, the location of the trails are on gentle slopes generally above the level of significant runoff or stream channel formation over the majority of the OHV area and few stream crossings. Because of the presence of the "degrade" checkmark at the project scale, the BLM determined that the Upper Nestucca Motorcycle Trail System is likely to adversely affect Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon. The NMFS concurs with the BLM on this project-level effects determination.

Watershed-Level Effects. In the BAs, the BLM provided watershed scale analyses for each of the indicators that would be degraded as a result of the proposed actions, along with ACS consistency reviews for the proposed action. The watershed scale analyses evaluated the effects of the proposed action on habitat indicators in the fifth-field watersheds relative to the long-term environmental baseline. That is, while the action has short-term, small scale adverse effects, only those indicators for which adverse effects would be considered significant at the watershed scale over a long period would receive a "degrade" checkmark. It is important to realize that both active and passive restoration activities contribute to the environmental baseline. In particular, the passive restoration that will occur over the long-term (at least a decade, see above), especially in Riparian Reserves, is a principal component of the watershed recovery aspect of the NFP. The role of Riparian Reserves, LSR, etc., in restoration of watersheds is described in USDA-FS and USDI-BLM (1994) and NMFS (1997).

The ACS consistency reviews included a description of how the proposed action complies with the nine ACS objectives. Because there is strong correspondence between the habitat indicators of the Matrix and the ACS objectives, it is likely that if habitat indicators in the watershed scale Checklist is maintained or restored by an action, then compliance with ACS objectives is also achieved. Therefore, in the description below, only the habitat indicators which were determined to be degraded by the action at the sixth- field subwatershed scale are discussed. Whether

discussed below or not, information on all of the habitat indicators and ACS objectives were provided in the BLM's BAs, and were considered in our analysis.

The Upper Nestucca Motorcycle Trail System is proposed for the Nestucca "River key watershed within the Oregon Coast Range Province and the Willamina Creek non-key watershed within the Willamette Province. For this action, the BLM determined that all of the habitat indicators would be maintained at the watershed scale over the long term, despite the project-level " "degrade" that was recorded in the sixth-field checklists. As noted under "Project-Level Effects," above, the "turbidity" and "substrate/sediment" indicators were thought to be degraded due to trail improvement work, trail construction, culvert installations, and trail use. Even in that situation, it is unlikely to be detectable in any fish bearing stream in the watersheds. The nearest anadromous fish, including Oregon Coast coho salmon, are estimated to be 0.75 miles or more downstream of trail locations. The nearest habitat that has the potential to be occupied by anadromous fish, including UWR steelhead, is estimated to be 0.25 miles or more downstream of trail locations. In the long-term and on the watershed scale, these "degrades" were thought to be inconsequential, because of its short-term and highly localized nature.

Although the Nestucca Watershed Analysis (USDA-FS *et al.* 1994) acknowledges the existence of a developed motorcycle trail system, it does not provide management recommendations on the trail system. It does, however, acknowledge that the "[p]resence of existing recreation facilities and proposals for new ones within Riparian Reserves presents a potential conflict with the recently approved ROD Aquatic Conservation Strategy" (page 55 in USDA-FS *et al.* 1994). The Nestucca Watershed Analysis generally states that recreation within the Nestucca Watershed is consistent with ecosystem goals while considering public demands for recreation. In addition, it states that existing recreation sites should be evaluated for compliance with the ACS in the NFP, and if they are not, to identify and implement restoration actions which are needed to maintain compliance.

Based on the ACS Consistency Review for the Upper Nestucca Motorcycle Trail System, it appears that all of the relevant NFP S&Gs, including RM-I, would be observed. Compliance with the nine ACS objectives is also adequately described by the BLM.

Effects Summary. The NMFS has considered the applicability of the site (subwatershed) and watershed scale analyses to the proposed action in the BAs and in this Opinion. In addition, the NMFS has considered the Nestucca Watershed Analysis (USDA-FS *et al.* 1994) in its analysis of effects of the action. The NMFS is not aware of any other special characteristics of the particular actions that would cause greater or materially different effects on Oregon Coast coho salmon, UWR steelhead, UWR chinook salmon, and their habitat than is discussed in these analyses. In that substantial portions of all of the watersheds discussed in this Opinion are privately-owned, the NMFS assumes that the cumulative effects of non-Federal land management practices will continue at similar intensities as in recent years [pages 41-42 in NMFS (1997)]. The NMFS is not aware of any newly available information that would materially change the previous cumulative effects analysis in NMFS (1997).

The effects of the proposed action on Oregon Coast coho salmon, UWR steelhead, UWR chinook salmon, and their habitat are presented in the BAs prepared by the BLM (specifically in the project and watershed-level Checklists and text, ACS Consistency Reviews, watershed analyses, and the environmental assessments). The NMFS finds those descriptions to be adequate for this analysis. Based on this information, the NMFS does not believe these actions will likely result in more effects than expected or considered in NMFS (1997). In particular, the BLM determined, and the NMFS concurred, that relevant NFP S&Gs, including RM -I, would be followed, and that ACS objectives would be met at the watershed scale and in the long term when the effects of the proposed action are combined with the environmental baseline. This ACS consistency determination was made because the BLM showed that, despite their proposed action, watershed habitat indicators would be maintained over the long-term.

The NMFS expects that ACS objectives which may be affected by the subject actions will be met for the following reasons: (1) Trail construction criteria presented in Appendix B of the Decision Record will minimize the potential for sediment and turbidity; (2) potential impacts from trail use are unlikely due to gentle slopes generally above the level of significant runoff or stream channel formation over the majority of the OHV area and few stream crossings; and (3) the trail system will be monitored, evaluated, and maintained. Despite the minor, short-term adverse effects, this action maintains essential habitat functions, and will not impede recovery of salmonid habitat, a long-term goal of the NFP.

Cumulative Effects

Cumulative effects are defined as "those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation" (50 CFR § 402.02). For the purposes of this consultation, the action area includes those portions of the Upper Nestucca River and Willamina Creek watersheds within the Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon ESUs, and river reaches downstream of the administrative unit boundaries that may be affected by the proposed action.

Cumulative effects on Oregon Coast coho salmon are discussed on pages 41-43 of the NMFS (1997). The respective analyses of the biological requirements, environmental baseline or cumulative effects from NMFS (1997) are incorporated herein by this reference. The NMFS is not aware of any newly available information that would materially change these previous analyses. The proposed rule for listing Oregon Coast coho salmon (July 25, 1995, 60 FR 38011) and final rule for listing Southern Oregon/Northern California coho salmon (May 6, 1997, 62 FR 24588) discuss the influences of state and private actions on Oregon Coast coho salmon and their survival.

Conditions on private land are often an important influence on watershed processes and salmonid habitat. Management practices on these lands likely have a disproportionate influence because many low gradient, valley bottom reaches that historically provided juvenile coho over winter habitat are privately owned.

Within the UWR steelhead and UWR chinook salmon ESUs, Federal lands comprise approximately 16% of the area. A portion of spawning and rearing habitat for UWR steelhead and UWR chinook salmon occurs on the USFS and BLM lands. Gradual improvements in habitat conditions for salmonids are expected on these lands as a result of NFP implementation.

In general, NMFS (1996a) identifies destruction and modification of habitat, overutilization for recreational purposes, and natural and human-made factors as being the primary reasons for the decline of west coast steelhead. Historically, habitat blockage and degradation have been significant problems in the UWR ESU. Available habitat has been reduced by construction of dams in the Santiam, McKenzie, and Middle Fork Willamette River subbasins, and these dams have probably adversely affected remaining production via thermal effects. Agricultural development and urbanization are the main activities that have adversely affected habitat throughout the basin (March 24,1999,64 FR 14322). .

Significant improvements in UWR steelhead and UWR chinook salmon production outside of USFS and BLM land is unlikely without changes in forestry, agricultural, and other practices occurring within non-Federal riparian areas. The NMFS is aware that significant efforts, such as the Oregon Plan for Salmon and Watersheds and the Willamette River Initiative, have been developed to improve conservation of at-risk salmonid populations (including UWR steelhead and UWR chinook salmon) on non-Federal land. The NMFS is not aware of any general changes to existing State and private activities within the action area that would cause greater impacts than presently occur to any of the salmonid species considered in this consultation.

Until improvements in non-Federal land management practices are actually implemented, the NMFS assumes that future private and State actions will continue at similar intensities as in recent years. Now that Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon are listed under the ESA, the NMFS assumes that non-Federal land owners in those areas will also take steps to curtail or avoid land management practices that would result in the take of those species. Such actions may be prohibited by Section 9 of the ESA, and subject to the incidental take permitting process under Section 10 of the ESA. Future Federal actions, including the ongoing operation of hydropower projects, hatcheries, fisheries, and land management activities will be reviewed through separate Section 7 processes. In addition, non-Federal actions that require authorization under Section 10 of the ESA would be considered in the environmental baseline for future Section 7 consultations.

Section 7(a)(2) Determinations

The NMFS concludes that, when the effects of the proposed site specific action are added to the environmental baseline and cumulative effects occurring in the relevant action areas, they are not likely to jeopardize the continued existence of Oregon Coast coho salmon, UWR steelhead, or UWR chinook salmon.

In reaching these conclusions, NMFS has utilized the best scientific and commercial data available as documented herein and by the BAs and documents incorporated by reference.

Incidental Take Statement

Enclosed with this document is the incidental take statement for the Upper Nestucca Motorcycle Trail System.

Reinitiation

This concludes formal consultation on the subject action in accordance with 50 CFR § 402.14(b) (1). The Salem District BLM must reinitiate this ESA consultation:

(1) If the amount or extent of taking specified in the incidental take statement is exceeded; (2) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or (4) If a new species is listed or critical habitat designated that may be affected by the identified action.

If you have any questions, please contact Garwin Yip of my staff at (503) 230-5419.

Sincerely,



William Stelle, Jr.
Regional Administrator

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Incidental Take Statement for the Upper Nestucca Motorcycle Trail System

Sections 4(d) and 9 of the ESA prohibit any taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct) of listed species without a specific permit or exemption. harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, and sheltering. Harass is defined as actions that create the likelihood of injuring listed species to such an extent as to significantly alter normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. Incidental take is take of listed animal species that results from, but is not the purpose of, the Federal agency or the applicant carrying out an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(0)(2), taking that is incidental to, and not intended as part of, the agency action is not considered prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary; they must be implemented by the action, agency so that they become binding conditions of any grant or permit issued to the applicant, as appropriate, in order for the exemption in section 7(0)(2) to apply. The BLM has a continuing duty to regulate the activity covered in this incidental take statement. If the BLM (1) fails to adhere to the terms and conditions of the incidental take statement, and/or (2) fails to retain the oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(0)(2) may lapse.

An incidental take statement specifies the impact of any incidental taking of endangered or threatened species. It also provides reasonable and prudent measures that are necessary to minimize impacts and sets forth terms and conditions with which the action agency must comply in order to implement the reasonable and prudent measures. Incidental takings resulting from the agency action, including incidental takings caused by activities authorized by the agency, are exempted from the taking prohibition by section 7(0) of the ESA, but only if those takings are in compliance with the specified terms and conditions.

A. Amount or Extent of the Take

The NMFS anticipates that the action covered by this Opinion has more than a negligible likelihood of resulting in incidental take of listed species because of insufficient conditions and inadequate values for the parameters to minimize the potential adverse affects to listed species. The subject action, however, as described in the Opinion and modified by the reasonable and prudent measures, is expected to result in minimal incidental take of Oregon Coast coho salmon, UWR steelhead, and UWR chinook salmon. Effects resulting from trail construction and use (e.g., sedimentation) are expected to be the primary sources of incidental take associated with the proposed action covered by this Opinion. Because of the limited amount of new trail construction within riparian reserves, and the implementation of the M&E and Maintenance Plans, sediment impacts are expected to be minimized. Effects of the action such as these are largely unquantifiable, but are not expected to be measurable as long-term effects on the species'

habitat or population levels. Therefore, even though the NMFS expects a low level of incidental take to occur due to the action covered by this Opinion, the best scientific and commercial data available are not sufficient to enable the NMFS to estimate a specific amount of incidental take to the listed species themselves. In instances such as these, the NMFS designates the expected level of take as unquantifiable." Based on the information in the BA and revised BA, the NMFS anticipates that an unquantifiable amount of incidental take could occur as a result of the action covered by this Opinion.

B. Reasonable and Prudent Measures

The NMFS believes that the following reasonable and prudent measure(s) are necessary and appropriate to minimize and reduce the anticipated level of incidental take of the listed species. These reasonable and prudent measures are in addition to, or refinements of, the minimization measures proposed in the BA.

1. The decision elements from the Decision Record were designed to avoid, reduce, or offset potential adverse affects associated with the Upper Nestucca Motorcycle Trail System. These decision elements, in their entirety , are herein incorporated as reasonable and prudent measures.
2. The BLM shall provide annual reports for all of the monitoring, evaluation, and maintenance conducted for the Upper Nestucca Motorcycle Trail System.

C. Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the BLM must comply with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary .

1. The following are elaborations and clarifications of specific decision elements from the Decision Record.
 - A. Decision element 1.d. The 15-19 miles of new trails in the proposed action shall be offset by closing an equivalent amount of existing trails within the LSR. Closure of existing trails shall be concurrent with construction of authorized trail expansion. Documentation of closure method and timing will be kept on file at the Tillamook BLM office, and a copy attached to the annual monitoring report to be submitted to the NMFS. Unauthorized trails identified in the annual review shall not count towards offsetting the new trail construction mileage.
 - B. Decision element 7. The BLM shall implement and comply with the M&E plan, the first iteration issued on November 3, 1998. The M&E plan stated that it will be an adaptive management effort, and monitoring items/procedures will be

modified, as warranted. The BLM shall revisit the M&E plan annually, or sooner, to determine the need to modify the monitoring items/procedures. The NMFS and U.S. Fish and Wildlife Service (USFWS) shall be party to discussions regarding modification of the M&E plan. On November 16, 1998, Steven L. Morris (NMFS) submitted a comment letter to Dana Shuford (BLM) relaying concerns the NMFS had with the November 3, 1998, M&E plan. On December 7, 1998, Mr. Shuford submitted a response letter to Dr. Morris, however, he did not address the NMFS' comments and concerns, nor was the M&E Plan revised to incorporate the NMFS' comments. The BLM shall provide a written response to all of the NMFS comments and concerns mentioned in the November 16, 1998, letter, within 3 months of issuance of this Opinion. The responses may warrant modification of the M&E Plan.

- C. Decision element 8. Monitoring shall be conducted in three-year cycles, with an entire motorcycle trail system evaluation during the first year and annual monitoring during the two years afterwards.
- i. The entire motorcycle trail system shall be evaluated every three years by a hydrologist or a specialist experienced in water and soils, beginning with the trail assessment conducted during the fall of 1998. Trail condition and other information shall be documented using the "Nestucca OHV Trails Assessment" form attached to the M&E plan, or something similar.
 - ii. Annual monitoring shall be conducted during each of the two years following the entire motorcycle trail system evaluation. Annual monitoring shall be conducted for:
 - a. those trails or trail segments documented in the "Nestucca OHV Trails Assessment" form that show evidence of slight sediment delivery to streams or moderate to severe existing erosion and/or erosion potential. Trails or trail segments with existing or potential problems shall be maintained following the maintenance plan;
 - b. compliance with decision element 1.d. That is, to determine whether unauthorized trails are closed and rehabilitated within one year of detection;
 - c. those trails or trail segments that received recommendations for maintenance on the Nestucca OHV Trails Assessment form; and
 - d. those trails or trail segments that receive maintenance to ensure that maintenance standards have been met.

Upon successful completion of the maintenance or closure and rehabilitation, trails or trail segments identified in Term and Condition 1. C.ii. above do not need additional annual monitoring beyond the three-year cycle.

- D. Decision element 9. The BLM shall implement and comply with the maintenance plan, the first iteration issued on February 19, 1999. The BLM shall revisit the maintenance plan annually, or sooner, to determine the need to modify the maintenance actions/procedures. The NMFS and USFWS shall be party to discussions regarding modification of the maintenance plan. The maintenance plan shall be used to reduce the potential for problems, to conduct maintenance as problems occur, and to provide standards to be

achieved when maintenance is warranted. Trails shall be stabilized, repaired, or reconstructed to meet the standards within 12 months of detection, or closed to further use.

- E. Decision element 11. The designation of an additional 0-4 miles of trails shall not be to replace unauthorized trails, but mainly to provide linkage between various portions of the trail system.

- 2. The BLM shall provide the NMFS with an annual monitoring report that includes all information documented in the "Nestucca OHV Trails Assessment" form. In addition, the disposition of all recommendations made in the trail assessment shall be documented and included in the monitoring report in tabular form. Unauthorized trails, and trails or trail segments that warrant maintenance shall have the following information included: (1) name of trail; (2) length of trail segment that warrants maintenance; (3) date detected; (4) target time frames to complete the specific maintenance actions; (5) actual time frame to complete the closure, rehabilitation, or maintenance action; and (4) success of the closure, rehabilitation, or maintenance action.